March 19, 2010

Vol. 50, No. 6

Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html

Demo flight a first step to commercial jaunts to ISS

By Linda Herridge
Spaceport News

Future payloads and cargo to the International Space Station will one day be carried by commercially developed vehicles for NASA. The maiden demonstration flight of a SpaceX Falcon 9 rocket and Dragon spacecraft is one step closer after a successful 3.5-second first-stage hot fire test on March 13, from Cape Canaveral Air Force Station's Launch Complex-40.

SpaceX Director of Mission Assurance and Integration Scott Henderson said the launch pad is fully activated.

"We've been through a successful booster tanking test," Henderson said. "And the static fire of the first stage demonstrated the full countdown sequence through engine ignition."

The two-stage fully integrated launch vehicle on the pad consists of a first stage powered by nine SpaceX-developed Merlin 1C engines, a second stage, an interstage, an unpressurized trunk and the Dragon spacecraft qualification unit.

SpaceX was awarded procurement for three demonstration flights under the Commercial Orbital Transportation Services, or COTS, program managed by NASA's Johnson Space Center in Houston.

A subsequent contract for Commercial Resupply Services, or CRS, was awarded in late 2008 to resupply the space station. The SpaceX CRS contract provides for 12 missions to resupply the station from 2011 through 2015.

Steve Cain, who is the NASA Kennedy COTS/CRS project manager, said the COTS role is to help enable commercial space capabilities.

"The team has supported the SpaceX design and facility development reviews, sharing the center's engineering expertise and other capabilities when needed," Cain said.

Kennedy worked with Space Florida to acquire several high-pressure tanks and dewars from the Santa Susana Field Laboratory in California for SpaceX and other COTS partners.

Government Recovery Act funds were used to complete Launch Complex-40 upgrades. The lightning towers, power substation, facilities and conductive floor for the integration facility were upgraded or repaired to improve reliability

Henderson said the NASA COTS office has been instrumental in helping SpaceX stand up its Florida launch site and sharing technical lessons that will directly help the company achieve mission success.

"Our primary objective is a successful launch, which validates our booster structures, propulsion and avionics systems," Henderson said. "We also plan to recover the first stage to explore the possibility of refurbishing key components, including the engines, for future flight."

During the flight test, the rocket will launch at a due east trajectory over the horizon. The first stage will separate and is planned

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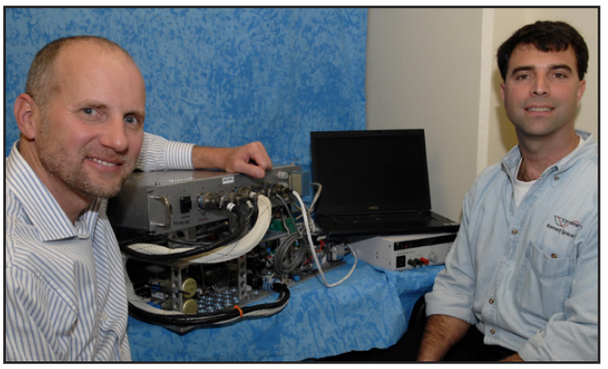
Photo courtesy of Chris Thompson/SpaceX

SpaceX successfully test fires its Falcon 9 rocket March 13 at Cape Canaveral Air Force Station, Fla. The firing clears a milestone toward the inaugural flight of a privately developed spaceship.

Inside this issue . . .

Shuttle leak detector reveals volcanic secrets

By Steven Siceloff
Spaceport News



NASA/Amanda Diller

Tim Griffin, left, and Richard Arkin are part of the team that designed a leak detector small enough to be carried in a car, airplane or even on foot.

As Tim Griffin and his team were working on better ways to detect hazardous gases on the shuttle launch pad, they found out they also could build something to find hazardous gases venting from a volcano.That means they may be only a short time away from building an early warning system for volcano eruptions -- a system that could give those near an active cone days or more to evacuate to safety.

"There are all kinds of volcano eruptions, some have large volumes of gases and some don't have any gases," Griffin said. "The long-term idea for this is that we'd be able to characterize the volcanoes. Then if the volcano becomes more active, we can get a better idea of what's going on, how active it is, (and) do we think it's going to be a violent eruption or mainly gases coming out?"

Griffin, who is the chief of Kennedy's Chemical Analysis Branch and holds a Ph.D. in chemistry, never studied volcanoes. Instead, his group's goal was to shrink the leak detection system at the launch pad from the size of three refrigerators to something that could be carried by hand, in a car or perhaps inside a spacecraft.

"This project started off as a way to push the boundaries with our shuttle system," said Richard Arkin of ASRC Aerospace, the detector's co-designer. "We wanted to make it smaller, more powerful and lighter while still maintaining operational abilities and maintenance."

Parts of the miniaturization work were easy, such as going from numerous sampling ports required at the pad to a single port for the smaller machine. Other aspects, such as building smaller pumps and other components, required innovation and invention. In both, a mass spectrometer is used to find out what chemicals are present in the air.

The team also set out to make the unit relatively autonomous, but still reliable and hearty.

At this point, the detector weighs in at 75 pounds. It stands about 9 inches tall and its footprint is a bit larger than a backpack. In fact, one of the goals of the project is to make it small enough to be carried in a backpack.

Griffin was talking about some of the work involved in chemical analysis at a conference when officials from Costa Rica's scientific program asked about applying the technology to the volcanic studies. It started to look like a natural fit.

Costa Rica proved a good testing ground for the equipment because most of the population lives around or near four active volcanoes. They don't worry only about sudden eruptions, but also high concentrations of carbon dioxide the volcanoes vent. The gas tends to kill all vegetation and livestock near the venting areas, but people can't see the carbon dioxide.

The detector showed a way to find out where the gas pockets are and how they change. The team flew the detector on three different kinds of airplanes, where it modeled the chemicals in volcanic plumes in three dimensions, a level of precision that astonished Arkin.

"That was something that I never thought about doing," Arkin said.

The team also put the detector in the backseat of a car and drove it through Costa Rican cities to sample the air and also carried it into the volcanoes by hand. In the future, Griffin wants to load it inside drones so the detection system can fly directly into the plumes of erupting mountains without endangering a pilot.

The results are expected to provide more information to help researchers pinpoint what volcanoes are doing at any given time, and when or if they might be about to spew.

Although the highest potential is still a few years away for the detection system, Griffin said he can envision a time when there are a number of detectors based around the world ready to scan volcanoes suspected of erupting. The extra information could be enough to convince officials to order an evacuation before it's too late.

Photo courtesy of Tim Griffin

A leak detector developed by Tim Griffin's team samples the air for chemicals as an airplane flies over volcanoes in Costa Rica. The sampling device is connected to a wing support strut and its tube runs inside the aircraft to the detector.

Amanda Mitsckevich

LSP names program manager

Amanda Mitskevich is going for the glory.

That's because her first launch as the program manager for NASA's Launch Service Program, or LSP, will be Glory, a satellite designed to study long-term climate change.

Mitskevich recently stepped up from her position as deputy program manager after Stephen Francois retired. Prior to that, she was the chief of the LSP Flight Projects Office.

As a mission manager of 30 successful launches, she led several spacecraft teams at NASA's Jet Propulsion Laboratory, Marshall Space Flight Center and Goddard Space Flight Center, as well as the National Oceanic and Atmospheric Administration and private industry.

Additionally, she was instrumental in making Kennedy LSP's home base in 1998.

Mitskevich holds a bachelor's in industrial engineering from Georgia Tech and a Master of Engineering Management from the University of Central Florida. She's worked in shuttle operations and was a recipient of NASA's Outstanding Leadership Medal.

Students inspired by STEM mentors

By Linda Herridge
Spaceport News

Lauren Cardamone, a senior at Bayside High School in Palm Bay, Fla., hopes to become a rocket scientist, and eventually, an American astronaut.

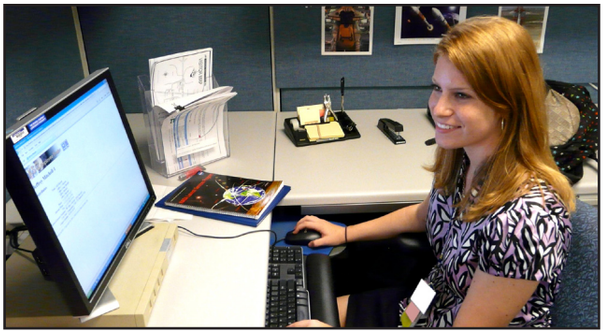
Her interest in science, technology, engineering and mathematics, or STEM, careers was reinforced when she participated in the Interdisciplinary National Science Project Incorporating Research and Education Experience, or INSPIRE, project at Kennedy.

INSPIRE is one of four agency-level projects that the center's Education Office plans and manages for NASA to encourage students to learn about STEM fields. The other projects are the Minority University Research and Education Programs Small Projects; the Exploration Systems Mission Directorate Space Grant; and the Experimental Program to Stimulate Competitive Research.

"I think NASA education programs, such as INSPIRE, are extremely important for students because they expose us to a real work environment that is both challenging and exciting," Cardamone said.

According to Berta Alfonso, who is lead for Kennedy-managed agency-wide education programs, the center plays a unique role in providing guidance and direction to all 10 NASA centers for program implementation.

"Kennedy formulates what the agency will provide and works with NASA Headquarters," Alfonso said. "We handle the high-level planning of what will be implemented each year and at what levels based on funding and other concerns."



NASA/Jim Wood

Lauren Cardamone, a senior at Bayside High School in Palm Bay, Fla., is a participant in the Interdisciplinary National Science Project Incorporating Research and Education Experience, or INSPIRE, project at Kennedy. During her internship, Cardamone helped ensure that the Operations and Checkout Facility's altitude chamber was operational as it was renovated for next-generation spacecraft.

More online

For more information about INSPIRE and other NASA education projects managed by Kennedy, visit: **www.nasa.gov/offices/education/centers/kennedy/home/index.html**.

Cardamone and Justin Birbal, now a freshman at Brevard Community College studying industrial engineering, were among the ninth- through 12th-graders from Florida, Georgia and Puerto Rico who spent eight weeks at Kennedy last year under the supervision of a mentor.

Steve Chance, who has been national project manager of INSPIRE since its implementation in April 2008, said, "This project provides students and parents across the country a direct link to all nine NASA centers and the Jet Propulsion Laboratory as they explore STEM education, careers and opportunities outside the school setting."

Chance said INSPIRE provides about 1,780 students an online community that links them with other like-minded students with interests in aeronautics and space exploration. INSPIRE also provides students opportunities to participate in a variety of hands-on experiences, including one-day VIP tours of a center, a two-week collegiate visit and paid internships at a NASA center.

Cardamone was a high school junior when she interned at the Space Station Processing Facility with Jacobs Engineering Group Inc. under the Checkout Assembly and Payload Processing Services contract.

"I wanted to participate in INSPIRE because it looked like an amazing opportunity to learn and experience NASA and the space program," Cardamone said. "I have always had an interest in rocketry and space, so this was a program I really wanted to be involved with."

For her project, Cardamone helped make sure the Operations and Checkout Facility's altitude chamber was operational as it was renovated for next-generation spacecraft.

Through her mentor, Kim Shepherd, an electrical engineer with ASRC Aerospace Corp., Cardamone was able to tour the Vehicle Assembly Building and Launch Pad 39A, and view space shuttle and rocket launches.

Shepherd said his motivation to be an INSPIRE mentor came from the very few but defining moments in his own childhood.

"Someone was there for me to point me in the right direction and was able to say the right words to instill motivation and the drive to do something great with my life," Shepherd said.

Birbal was in 11th grade when he first participated in INSPIRE, and returned during his senior year last summer. During those two internships, he developed and then perfected a database for audit findings for the center's Business System's Management Branch of the Center Operation Directorate.

"Participating in the INSPIRE program gave me the chance to work side-by-side with wonderful and helpful mentors who helped me decide my career direction," Birbal said. "It's a way for students to be exposed to real-life jobs, as well as different professions."

Birbal's mentor was Delia Markham, an audit program manager in the branch. She's been mentoring students for more than 14 years.

Markham said, "I became interested in mentoring because as a mother of four I believe firsthand personal experience can help identify individual talents."

From **FALCON**, Page 1

to be recovered 400 miles off Florida's coast, or about three times the distance of shuttle solid rocket booster retrieval. The second stage, trunk and Dragon spacecraft will be inserted into a low Earth orbit. For this flight test, the Dragon spacecraft will send telemetry but it will not maneuver.

"This demonstration flight is a logical lead-in to the NASA COTS demonstrations, which will prove our ability to reach the space station, maneuver close to it and ultimately mate to station and pass cargo back and forth," Henderson said.

"There are three demonstration flights scheduled for NASA's COTS program," Cain said. "Each one has a specific mission objective."

The first flight test, targeted for this summer, will follow the same parameters as the SpaceX flight, with the addition of four orbits by the Dragon spacecraft, a splashdown in the Pacific Ocean and spacecraft recovery. SpaceX also plans to retrieve the Falcon 9 first stage and engines.

The second flight test is targeted for fall 2010. The Falcon 9 will launch at a 51-degree inclination, which is the same as space shuttle missions to the station. The Dragon spacecraft and trunk will "dock" to a predetermined point in space and then be brought in communication range of the station, followed by splashdown and recovery.

The third flight test, targeted for early 2011, will follow the same parameters as the second flight, with an exciting twist. The Dragon spacecraft with trunk attached will fly close to the station so that the robotic arm can be operated to grab and bring it in to dock.

Cain said, "This third flight has the potential to bring cargo up to the station and retrieve cargo for return to Earth."

2010 KSC All-American Picnic

About 4,500 people attended the 31st annual Kennedy Space Center All-American Picnic on March 6. This year's picnic celebrated more than three decades of family, food and fun with classic children's games, train rides (background), music, a magic show, chili cook-off and dessert contest, face painting, and a car show.

NASA photos by Kim Shilflett and Glenn Benson

Attendees enjoyed corn on the cob, chili and desserts. Barbeque was provided by Slow & Low Bar-B-Que. Children ate hamburgers and chicken tenders from the eatery in Cocoa Beach, Fla.

Face painting was a favorite of the kids attending the picnic. The facial art themes included tigers, butterflies, fairies and clowns.

Generation XYZ games included a cornhole tournament, above, and Guitar Hero. Children's tournaments included running inside plastic bubbles during human sphere races. Jumping tents, inflatable slides and an obstacle course also were available.

Food and refreshments were served with biodegradable and compostable plates, bowls, cups and utensils. Eventually, the items will be composted into soil for Walt Disney World parks.

NASA astronaut Dominic Gorie, right, who signed autographs and posed for photographs at the picnic, talks with Kennedy Center Director Bob Cabana.

Friends duel it out in an inflatable arena during the human joust. The event was part of the Generation XYZ games, which were for individuals ages 14 and older.

Children of all ages got to choose from 25 activities, including finger printing for kids offered by the Brevard County Sheriff's Office. Activities included Putt Putt to the Planets, Moon Hunt and Feed the Alien.

Dan the Magic Man was part of the entertainment that included bands, such as Garden Gnomes, Voices in Your Head and Reflections.

Space enthusiast seeks 'Resolution' for shuttle mock-up

By Steven Siceloff
Spaceport News

Chuck Ryan's story of a space shuttle trainer called "Resolution!" is one of time and timing.

Ryan began building a full-scale mock-up of the shuttle's crew compartment some 15 years ago when he still was an engineering student at the California Polytechnic State University, Cal-Poly.

The attention to detail is obvious: on the outside, careful layering of fiberglass displays the rounded aerodynamic features of a real shuttle. On the inside, Ryan said, the cockpit was complete down to the thousandth toggle switch.

"I was one of those children of Apollo," Ryan said. "I was very interested in NASA my whole life."

Ryan said he gave his first NASA-focused presentation in fourth grade. He got a scuba diving license at age 13 and started learning to fly airplanes when he was 15, though his parents didn't know about it.

Since the space agency has certain restrictions against self-promotion, Ryan formed a student group at Cal-Poly to advertise NASA's goals and missions. Part of the work included building a shuttle flight deck into a flight simulator.

Working on their own time with donated wood, steel and other materials, the group of about 10 students decided to add a middeck.

"It all started with a phrase that should never be uttered: 'How hard can it be?'" Ryan said.

It was far from a smooth construction process, though. At one point, the flight deck fell from a crane and shattered on impact.

"I thought that was it," he said.

Ryan and his small band regrouped to rebuild the flight deck. But the large mock-up had to be moved from its construction site on campus. The students found a home for it 30 miles away on a strawberry farm.

He finished it there and it weighed about 15 tons. But it had to be moved again to make way for a housing development. By this time, though, the real shuttle program had a retirement date.

Anticipating there may be a use at Kennedy, the team packed the shuttle for shipment by train to the center more than 2,000 miles away.

It rolled into the rail yard near the Vehicle Assembly Building the day after space shuttle Discovery's Return to Flight mission, STS-114, launched in 2005.

"For one brief moment, the Resolution! was part of the fleet," Ryan said.

Since the mock-up was in three parts and not complete when it arrived in Florida, it was on the move again, this time stopping at a part of land where Ryan reassembled it while trying to determine its future.

He even rode out Tropical Storm Fay inside the mock-up in August 2008.

The shuttle nose section moved once more to a small parcel of land just outside Kennedy's south gate where drivers can see it easily as they head to and from the center.

After Ryan approached NASA last year saying his project was almost complete, Kennedy fire safety, engineering and Center Operations personnel began a thorough review for possible uses for the mock-up. But following the evaluation, NASA management determined Kennedy had the right resources to safely train crews and safety professionals through the end of Space Shuttle Program and there wasn't a need for an additional shuttle trainer with the fleet's retirement less than a year away.

Photo courtesy of Chuck Ryan

The space shuttle replica "Resolution!" as it was being built in Santa Maria, Calif.

Ryan doesn't know what the future holds for his would-be trainer, but his own plans include resuming his schooling and achieving closure for a project that has consumed much of his adult life.

Looking back on the effort, Ryan said the project showed how deeply the promise of space exploration can take hold.

Ryan said, "It's a testament to the love of manned spaceflight."

Custodian crafts space creativity with paper towels

Gabriel Mancuso is a quick, picker upper.

As an employee of L&M Technologies Inc., cleaning up is what he does. What he does with what he picks up, well, most of it goes in the trash. Some of it, though, he turns into art.

It started with three coffee filters, which Mancuso turned into a dove in honor of President Barack Obama winning the Nobel Peace Prize in October.

Mancuso, who cleans the United Space Alliance offices at the NASA Shuttle Logistics Depot daily, said he proudly does his job because he believes, "We are all essential to the space program. We all have to do our job to the best of our ability to maintain success."

NASA/Jack Pfaller

Gabriel Mancuso shows off the details of one of his models portraying a space shuttle launch.

That passion for America's space program took over and he began creating the space shuttle in numerous scenarios. He's created the shuttle launching, reaching the International Space Station, landing and even riding piggyback on a modified Boeing 747.

Mancuso uses Scotch tape, color markers and wire hangers to make the paper towels come to life.

It takes four to 12 hours to create a model to his specifications.

Along the way, he's had some pretty good advisors.

"Engineers have given me advice and even shared design concepts with me that I have used to re-create the space shuttle," Mancuso said. "Ironically, all our ideas come from the heavens, where we all wish to explore."

Of course, like many, Mancuso has his own dreams of traveling to space. That dream, he said, is what inspires him to create the art he does.

"To be able to first work in the space-travel community and then add the ability to create a one-of-a-kind collection of NASA-related items really is overwhelming," Mancuso said. "It is an honor to present this type of collection to the scientific community."

Mancuso, who was born in Argentina and came to the United States in 2000, said when he looks up at the sky he can see visions and dreams of exploration.

"I feel I can see a truth that NASA brings to the entire world, a truth that we need to keep exploring," Mancuso said.

NASA/Jack Pfaller

This model, which Gabriel Mancuso created with paper towels, Scotch tape and aluminum foil, shows a space shuttle riding piggyback on a modified Boeing 747.

Remembering Our Heritage

Food, comfort top concerns of first NASA crew

By Kay Grinter
Reference Librarian

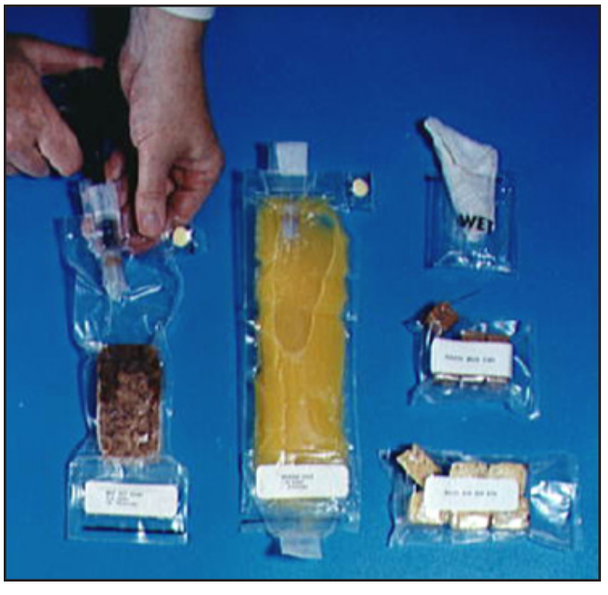
Gus Grissom and John Young formed the first NASA astronaut "crew" 45 years ago inside the Gemini capsule "Molly Brown." The Gemini 3 mission on March 23, 1965, was the first time that two astronauts were launched in the same spacecraft.

The Gemini Program was designed to prepare the way for lunar missions by demonstrating the feasibility of rendezvous and docking two spacecraft, but determining the physiological reactions of two men and their supporting equipment to long-duration flights also was an important objective. The information collected would be crucial to the success of the Apollo Program.

The Gemini capsule was manufactured by McDonnell Douglas, the experienced builder of the Mercury capsules. Its habitable volume was 80 cubic feet in contrast to the 50 cubic feet of the Mercury spacecraft and was similar in size to the front cab of a Volks- wagen Beetle. Experience had demonstrated that some equipment could be placed outside the pressurized cabin and left behind at re-entry.

For all practical purposes, the astronauts were confined to their seats. For Grissom and Young, this was manageable on the relatively short Gemini 3 flight of three Earth orbits, which took slightly less than five hours. With the two hours they were secured in the capsule awaiting liftoff, they were confined for total of seven hours, comparable to the time many aerospace workers sit at their computers every day. Young later complained about this extra time he spent flat on his back and fully suited.

However, the accommodations were most challenging for Frank Borman and James Lovell Jr. They made 206 Earth orbits on their Gemini 7 flight of nearly 14 days. Even a computer addict may find it difficult to remain in front of a monitor for two weeks.



NASA file/1965

Testing of a new array of specially packaged space food was a secondary objective on Gemini 3. The official food flew only for evaluation of its taste, convenience and reconstitution properties.

NASA file/1965

Astronauts Gus Grissom, command pilot, foreground, and John Young, pilot, are inside their Gemini 3 spacecraft at what was then Cape Kennedy's Pad 19. Its habitable volume was 80 cubic feet in contrast to the 50 cubic feet of the Mercury spacecraft.

Supplying Gemini crews with an adequate diet was critical since some missions were scheduled to last several days. Grissom constantly complained about the dehydrated delicacies concocted by NASA nutritionists.

Testing of a new array of specially packaged space food was a secondary objective on Gemini 3. The official food was being flown only for evaluation of its taste, convenience, and reconstitution properties, not for any scientific or medical objectives. Young was assigned to conduct the testing.

"I was concentrating on our spacecraft's performance, when suddenly John asked me, 'You care for a corned beef sandwich, skipper?' " Grissom said during an interview after his flight. "If I could have fallen out of my couch, I would have. Sure enough, he was holding an honest-to-john corned beef sandwich."

Wally Schirra, a backup astronaut for the mission, bought the deli sandwich at Wolfie's, a popular restaurant in Cocoa Beach, Fla., and gave it to Young, who smuggled it into the capsule in his spacesuit pocket.

As Grissom bit into the sandwich, one of his favorites, tiny pieces of rye bread began floating around the cabin, and the crew was overwhelmed by the pungent aroma of corned beef wafting through the tiny spacecraft.

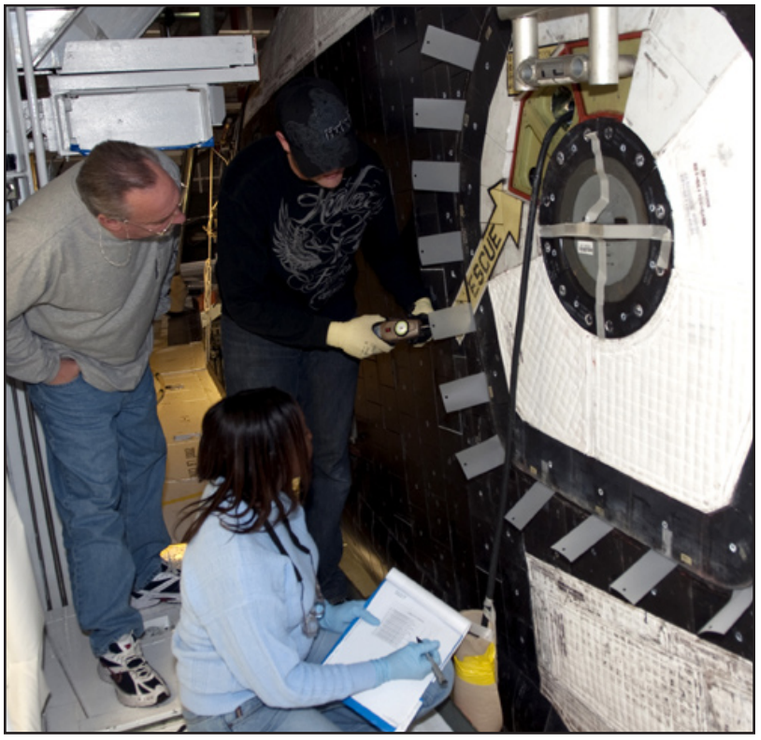
"After the flight, our superiors at NASA let us know in no uncertain terms that non-man-rated corned beef sandwiches were out for future space missions," Grissom said.

Today, Russian and American foods are provided to Expedition crews in cans and pouches -- in hydrated and dehydrated forms. Entries include lamb with vegetables, sturgeon, chicken with rice, and even more exotic choices, such as Chinese sticky rice with sweet bean paste, beef jerky from Hawaii, dried calamari, and some French foods, such as duck cassoulet and beef with burgundy sauce.

The habitable area of a space shuttle is 2,525 cubic feet, and the internal pressurized volume of the International Space Station has grown to 33,023 cubic feet, both spacious in comparison to the Gemini capsule.

Today, the station is 98 percent complete by volume and provides the Expedition crews room equal to that of a Boeing 747, and that's room enough for company. The largest team of astronauts and cosmonauts to reside on the station to date is 13.

Around Kennedy . . .



NASA/Jim Grossmann

Technicians secure space shuttle Atlantis' hatch in preparation for the Mylar pull test inside Kennedy's Orbiter Processing Facility-1. During the test, a scale will measure the force required to pull a piece of Mylar paper out from between the door and structural wall thermal barriers. The test ensures the integrity of the hatch and that it has closed properly. Atlantis is being processed for the STS-132 mission targeted to launch May 14. Its six-member crew will deliver an Integrated Cargo Carrier and a Russian-built Mini Research Module to the International Space Station.

Looking up and ahead . . .

Targeted for April 5	Launch/KSC: Discovery, STS-131; 6:21 a.m. EDT
Targeted for April 12	Launch/CCAFS: Falcon 9/Dragon; Window 11 a.m. to 3 p.m. EST
Planned for April 18	Landing/KSC: Discovery, STS-131; 8:38 a.m. EDT
April 19	Launch/CCAFS: Atlas V, OTV; 10 p.m. to 2 a.m. EDT
Targeted for May 14	Launch/KSC: Atlantis, STS-132; 11:58 a.m. EDT
May 17	Launch/CCAFS: Delta IV, GPS IIF-1; 3:19 to 3:37 a.m. EDT
No earlier than July 21	Launch/CCAFS: Falcon 9/Dragon, NASA COTS - Demo 1; TBD
Targeted for July 29	Launch/KSC: Endeavour, STS-134; 7:51 a.m. EDT
Targeted for Sept. 16	Launch/KSC: Discovery, STS-133; 11:57 a.m. EDT
Targeted for Nov. 17	Launch/CCAFS: Atlas V, GPS IIF-2; TBD
No earlier than Nov. 22	Launch/VAFB: Taurus, Glory; TBD
Aug. 5, 2011	Launch/CCAFS: Atlas V, Juno; TBD
Aug.15, 2011	Launch/Reagan Test Site: Pegasus, NuSTAR; TBD
Sept. 8, 2011	Launch/CCAFS: Delta II Heavy, GRAIL; TBD
To Be Determined	Launch/VAFB: Delta II, Aquarius / SAC-D Satellite; TBD
To Be Determined	Launch/VAFS: Delta II, NPP; TBD
No Earlier Than Oct. 14, 2011	Launch/CCAFS: Atlas V, Mars Science Laboratory; TBD

WORD ON THE STREET

A commercial vehicle that has the potential to take humans into space is targeted to launch in April. How much would you pay to take a trip into space?

"A week or two weeks' salary would be about it. I definitely would do it if I could afford it."

Dave Kilby,
with Abacus Technology Corp.

"A couple months' salary. I'd figure out something for a chance to go into space. It would be so worth it."

Bill Jenkins,
with United Space Alliance

"I would give everything I could that would not impact my family. I might even consider my retirement."

Mario Busacca,
with NASA

"If money were no option, I'd give about two weeks' salary. Yes, that's about right."

Margaret Pabst,
with Abacus Technology Corp.

"I don't have any desire to go into space. I'd be totally scared to death."

Debbie Richard,
with Innovative Health Applications

John F. Kennedy Space Center

Spaceport News

Spaceport News is an official publication of the Kennedy Space Center and is published on alternate Fridays by External Relations in the interest of KSC civil service and contractor employees.

Contributions are welcome and should be submitted **three weeks** before publication to the Media Services Branch, IMCS-440. E-mail submissions can be sent to **KSC-Spaceport-News@mail.nasa.gov**

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Editor . . . . . Frank Ochoa-Gonzales
Copy editor . . . . . Rebecca Sprague

Editorial support provided by Abacus Technology Corp. Writers Group.
NASA at KSC is on the Internet at www.nasa.gov/kennedy
USGPO: 733-049/600142